



Product Evaluation

RC477 | 0216

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-477

Effective Date: February 1, 2016

Re-evaluation Date: March 2020

Product Name: Duradek Ultra PVC Roof Coverings

Manufacturer: Duradek U.S. Inc.
8288 129th Street
Surrey, British Columbia V3W 0A6
Canada
(604) 591-5594

General Description:

Duradek Ultra Membrane: A nominal 60-mil thick roofing membrane. The membrane is a 55 ounce per square yard calendered polyvinyl chloride (PVC) film laminated to a woven, heat-set polyester fabric. The surface of the PVC film is factory-printed and top-coated with a PVC/acrylic finish. The membrane is produced in a variety of colors and patterns. The membrane is available in rolls of various widths and lengths.

Duradek D763 Adhesive: A water based, white-colored, liquid adhesive.

Duradek D811 Adhesive: A yellow-colored, liquid contact adhesive.

Maipei Ultra Flex 2: A single-component, polymer-modified, thin-set mortar.

Limitations:**Roof Deck:**

- **Plywood:** Minimum 5/8" thick exterior grade tongue and groove plywood. For new roof applications, the plywood substrate must be secured to the roof framing to resist the uplift loads as required for the specific installation on the structure.
- **USG Durock Cement Board Next Gen:** Minimum nominal 1/2" thick cement panel. Manufactured by United States Gypsum Company.

Roof Framing: Roof framing spacing must not exceed 16" on center. For new roof applications, the spacing of the roof framing members must be as required to resist the uplift loads as required for the specific installation of the roof covering on the structure,

Positive Drainage of Roof Deck: Roof decks, in which this product is to be installed upon, must be provided with positive drainage. A minimum roof slope after construction of 1/4" per foot is recommended.

Design Wind Pressures: The design wind uplift pressures must be as specified in the assemblies listed in this evaluation report.

Installation Over an Existing Roof Covering: Not permitted.

Installation:

General Installation Requirements: IRC and IBC requirements must be satisfied and the manufacturer's installation instructions followed, unless otherwise specified by this product evaluation report.

Edge Securement: Metal edge securement of the membrane must be designed in accordance with ANSI/SPRI ES-1.

Installation: Installation must be in accordance with the following assemblies:

Assembly No. 1	
Design Pressure	-200 psf
Deck	Minimum 1/2" Durock cement board over minimum 5/8" plywood. Attachment: Adhere the cement board to the plywood using the Maipai Ultra Flex 2 troweled down with a 1/4" x 1/4" square notch trowel. Secure the cement board to the plywood with 1-1/4" long Rock-on No. 9 Hi-Lo thread screws. Locate the fasteners approximately 6" on center along the perimeter of each cement board.
Membrane	Duradek Ultra Membrane, minimum 60-mil thick. Attachment: The membrane is adhered to the cement board with Duradek D811 adhesive. The adhesive is applied with either a brush or a roller. The coverage rate is 1 gallon per 95 square feet.

Assembly No. 2	
Design Pressure	-200 psf
Deck	Minimum 1/2" Durock cement board over minimum 5/8" plywood. Attachment: Adhere the cement board to the plywood using the Maipai Ultra Flex 2 troweled down with a 1/4" x 1/4" square notch trowel. Secure the cement board to the plywood with 1-1/4" long Rock-on No. 9 Hi-Lo thread screws. Locate the fasteners approximately 6" on center along the perimeter of each cement board.
Membrane	Duradek Ultra Membrane, minimum 60-mil thick. Attachment: The membrane is adhered to the cement board with Duradek D763 adhesive. The adhesive is applied with either a U-notched trowel with 1/32" deep x 1/16" wide notches spaced 1/32" or a textured roller. The rate of coverage is 1 gallon per 190 square feet.

Assembly No. 3	
Design Pressure	-200 psf
Deck	Minimum 5/8" plywood.
Membrane	Duradek Ultra Membrane, minimum 60-mil thick. Attachment: The membrane is adhered to the plywood with Duradek D763 adhesive. The adhesive is applied with either a U-notched trowel with 1/32" deep x 1/16" wide notches spaced 1/32" or a textured roller. The rate of coverage is 1 gallon per 190 square feet.

Assembly No. 4	
Design Pressure	-240 psf
Deck	Minimum 5/8" plywood.
Membrane	Duradek Ultra Membrane, minimum 60-mil thick. Attachment: The membrane is adhered to the plywood with Duradek D811 adhesive. The adhesive is applied with either a brush or a roller. The coverage rate is 1 gallon per 95 square feet.

Note: Keep the manufacturer's installation instructions on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.